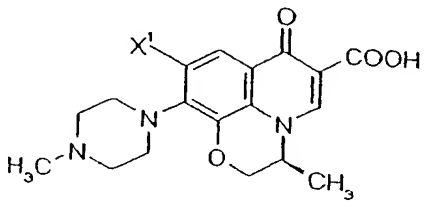
AMENDMENTS TO THE CLAIMS

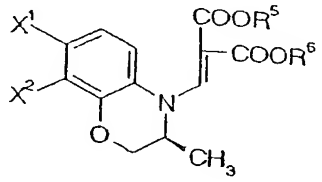
This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended) A process for producing a compound represented by the following formula:

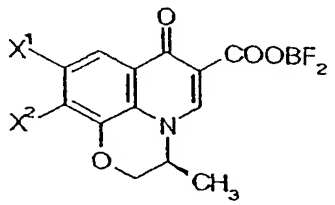


which comprises comprising obtaining a compound represented by formula (VI-a) by any of the following Processes A to J:



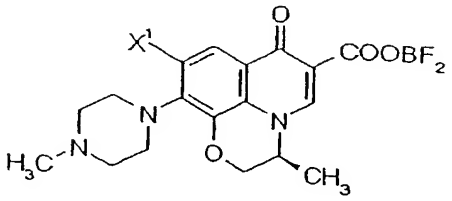
(VI-a)

treating this compound with a boron trifluoride compound to thereby convert it into a boron chelate compound represented by the following formula:



reacting this compound with 4-methylpiperazine to give a

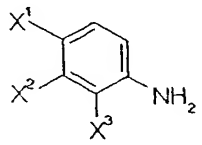
compound represented by the following formula:



and then cleaving and eliminating the boron chelate of this compound:

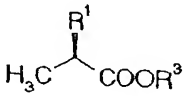
Process A:

a process which comprises reacting a compound represented by formula (I):



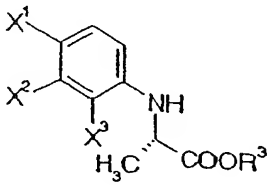
(I)

with a compound represented by formula (II-1-a) in the presence of a base:



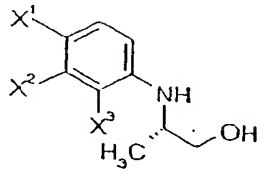
(II-1-a)

to give a compound represented by the formula (III-1-a):



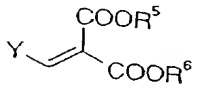
(III-1-a)

reducing this compound into a compound represented by formula (IV-a):

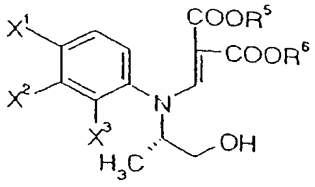


(IV-a)

reacting this compound with a compound represented by the following formula:



to give a compound represented by the formula (V-a):

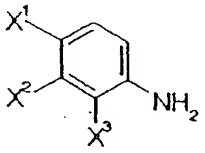


(V-a)

and then treating this compound in the presence of a base;

Process B:

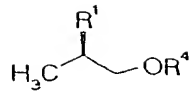
a process which comprises reacting a compound represented by formula (I):



(I)

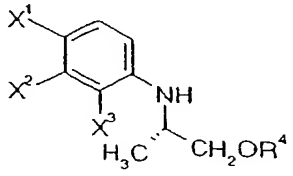
with a compound represented by formula (II-2-a) in the presence

of a base:



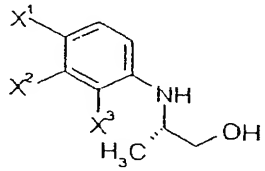
(II-2-a)

to give a compound represented by formula (III-2-a):



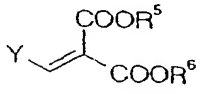
(III-2-a)

eliminating the hydroxyl-protective group of this compound to give a compound represented by formula (IV-a):

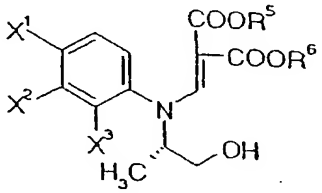


(IV-a)

reacting this compound with a compound represented by the following formula:



to give a compound represented by the formula (V-a):

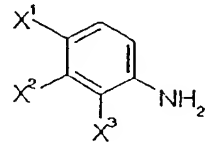


(V-a)

and then treating this compound in the presence of a base;

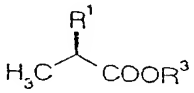
Process C:

a process which comprises reacting a compound represented by formula (I):



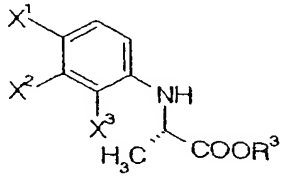
(I)

with a compound represented by formula (II-1-a) in the presence of a base:



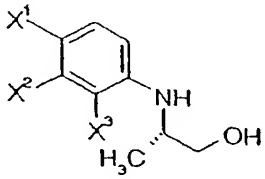
(II-1-a)

to give a compound represented by formula (III-1-a):



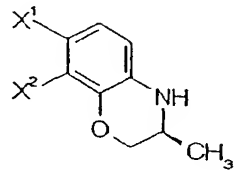
(III-1-a)

reducing this compound into a compound represented by formula (IV-a):



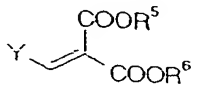
(IV-a)

treating this compound in the presence of a base to give a compound represented by the formula (VII-a):



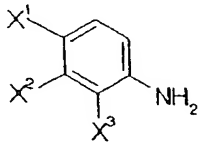
(VII-a)

and reacting this compound with a compound represented by the following formula;



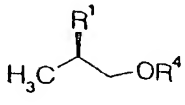
Process D:

a process which comprises reacting a compound represented by formula (I):



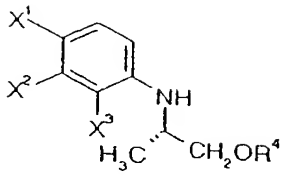
(I)

with a compound represented by formula (II-2-a) in the presence of a base:



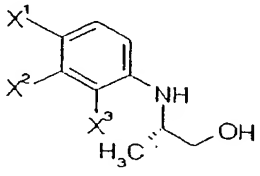
(II-2-a)

to give a compound represented by formula (III-2-a):



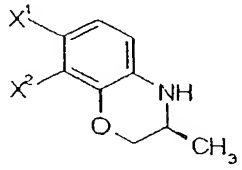
(III-2-a)

eliminating the hydroxyl-protective group of this compound to give a compound represented by formula (IV-a):



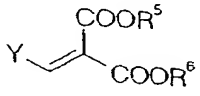
(IV-a)

treating this compound in the presence of a base to give a compound represented by formula (VII-a):



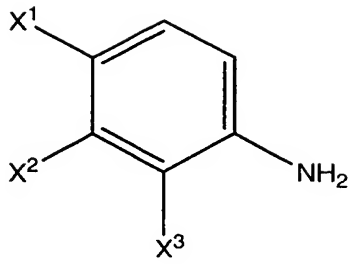
(VII-a)

and then reacting this compound with a compound represented by the following formula:



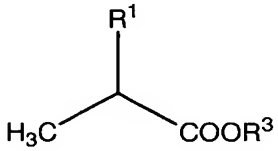
Process E:

a process which comprises reacting a compound represented by formula (I):



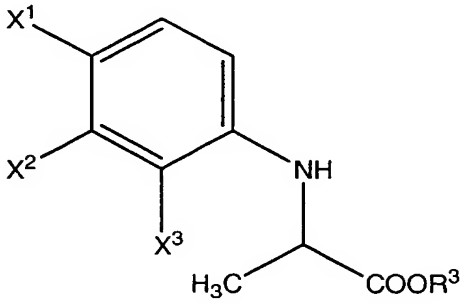
(I)

with a compound represented by formula (II-1) in the presence of a base:



(II-1)

to give a compound represented by formula (III-1):



(III-1)

and then subjecting this compound to the following Method 1 or 2;

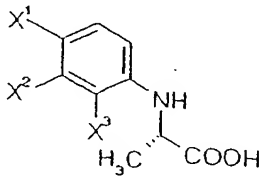
Method 1:

in case of the compound represented by the formula (III-1) where R^3 is not a hydrogen atom, a method which comprises treating this compound with an enzyme capable of asymmetrically hydrolyzing an ester or a liquid culture medium of a microorganism, cells of this microorganism or processed cells of this microorganism capable of asymmetrically hydrolyzing an ester and, after the completion of this treatment, isolating the product from the treated liquid mixture;

Method 2:

in case of the compound represented by the formula (III-1) where R^3 is a hydrogen atom, a method which comprises optically resolving this compound by reacting with an optically active organic base;

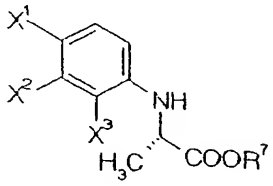
to obtain a carboxylic acid compound represented by the following formula:



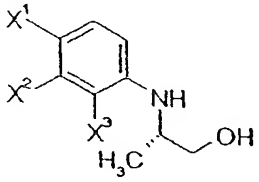
esterifying this compound in the presence of an alcohol represented by the following formula:

R^7-OH

to give an ester compound represented by the following formula:



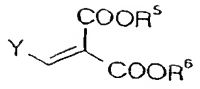
reducing the compound into a compound represented by formula (IV-a):



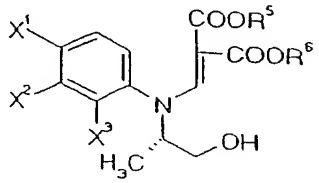
(IV-a)

reacting this compound with a compound represented by the

following formula:



to give a compound represented by formula (V-a):

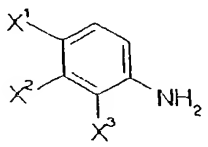


(V-a)

and then treating this compound in the presence of a base;

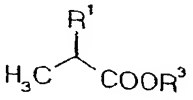
Process F:

a process which comprises reacting a compound represented by formula (I):



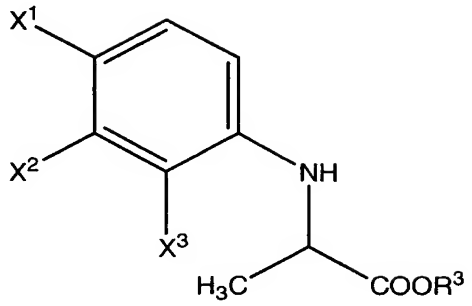
(I)

with a compound represented by formula (II-1) in the presence of a base:



(II-1)

to give a compound represented by formula (III-1):



(III-1)

and then subjecting this compound to the following Method 1 or 2;

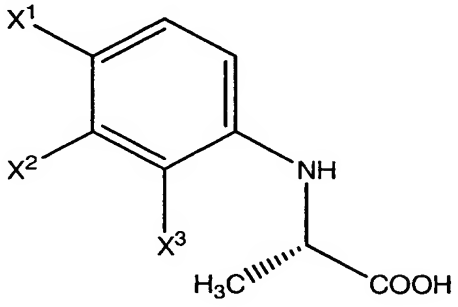
Method 1:

in case of the compound represented by the formula (III-1) where R^3 is not a hydrogen atom, a method which comprises treating this compound with an enzyme capable of asymmetrically hydrolyzing an ester or a liquid culture medium of a microorganism, cells of this microorganism or processed cells of this microorganism capable of asymmetrically hydrolyzing an ester and, after the completion of this treatment, isolating the product from the treated liquid mixture;

Method 2:

in case of the compound represented by the formula (III-1) where R^3 is a hydrogen atom, a method which comprises optically resolving this compound by reacting with an optically active organic base;

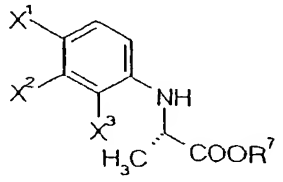
to obtain a carboxylic acid compound represented by the following formula:



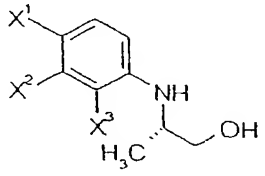
esterifying this compound in the presence of an alcohol represented by the following formula:

$$R^7\text{-}OH$$

to give an ester compound represented by the following formula:

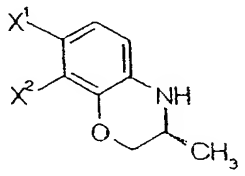


reducing the compound into a compound represented by formula (IV-a):



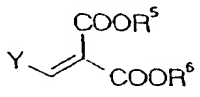
(IV-a)

treating this compound in the presence of a base to give a compound represented by formula (VII-a):



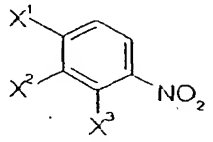
(VII-a)

and then reacting this compound with a compound represented by the following formula;

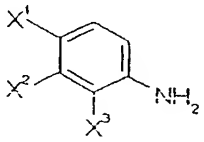


Process G:

a process which comprises reacting a compound represented by the following formula:



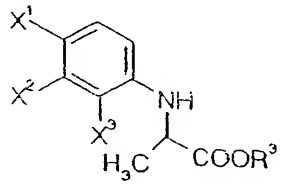
or by the following formula:



with a compound represented by the following formula in the presence of a metal catalyst under a hydrogen gas atmosphere, optionally in the presence of a dehydrating agent or an acid:

$CH_3COCOOR^3$

to give a compound represented by formula (III-1):



(III-1)

and then subjecting this compound to the following Method 1 or 2;

Method 1:

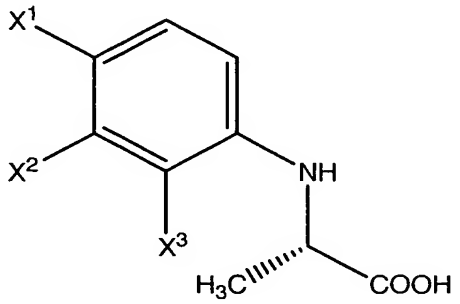
in case of the compound represented by the formula (III-1)

where R^3 is not a hydrogen atom, a method which comprises treating this compound with an enzyme capable of asymmetrically hydrolyzing an ester or a liquid culture medium of a microorganism, cells of this microorganism or processed cells of this microorganism capable of asymmetrically hydrolyzing an ester and, after the completion of this treatment, isolating the product from the treated liquid mixture;

Method 2:

in case of the compound represented by the formula (III-1) where R^3 is a hydrogen atom, a method which comprises optically resolving this compound by reacting with an optically active organic base;

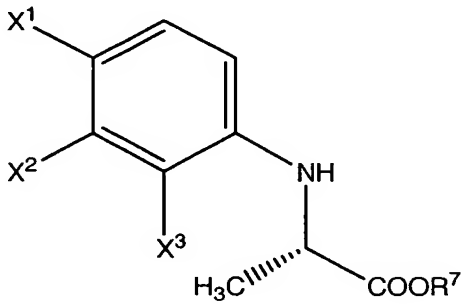
to obtain a carboxylic acid compound represented by the following formula:



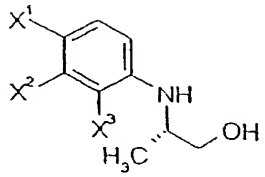
esterifying this compound in the presence of an alcohol represented by the following formula:

R^7-OH

to give an ester compound represented by the following formula:

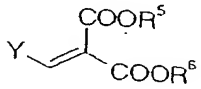


reducing the compound into a compound represented by formula (IV-a):

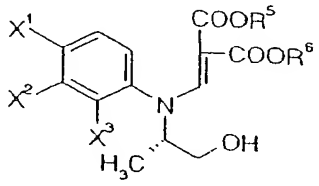


(IV-a)

reacting this compound with a compound represented by the following formula:



to give a compound represented by the formula (V-a):

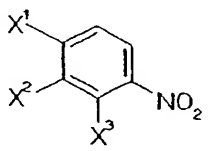


(V-a)

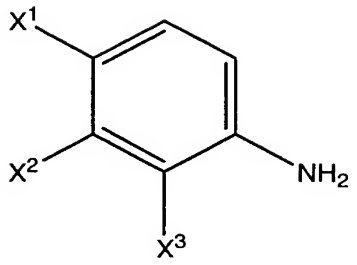
and then treating this compound in the presence of a base;

Process H:

a process which comprises reacting a compound represented by the following formula:



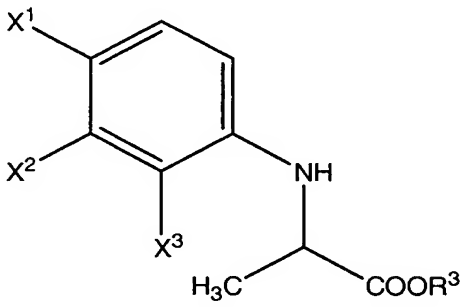
or by the following formula:



with a compound represented by the following formula in the presence of a metal catalyst under a hydrogen gas atmosphere, optionally in the presence of a dehydrating agent or an acid:

$CH_3COCOOR^3$

to give a compound represented by formula (III-1):



(III-1)

and then subjecting this compound to the following Method 1 or 2;

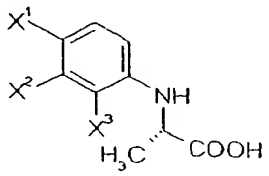
Method 1:

in case of the compound represented by the formula (III-1) where R^3 is not a hydrogen atom, a method which comprises treating this compound with an enzyme capable of asymmetrically hydrolyzing an ester or a liquid culture medium of a microorganism, cells of this microorganism or processed cells of this microorganism capable of asymmetrically hydrolyzing an ester and, after the completion of this treatment, isolating the product from the treated liquid mixture;

Method 2:

in case of the compound represented by the formula (III-1) where R^3 is a hydrogen atom, a method which comprises optically resolving this compound by reacting with an optically active organic base;

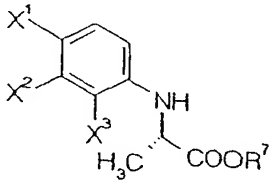
to obtain a carboxylic acid compound represented by the following formula:



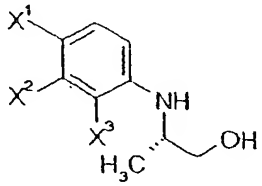
esterifying this compound in the presence of an alcohol represented by the following formula:

R^7-OH

to give an ester compound represented by the following formula:



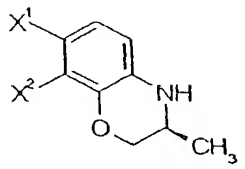
reducing the compound into a compound represented by formula (IV-a):



(IV-a)

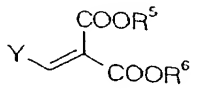
treating this compound in the presence of a base to give a compound

represented by formula (VII-a):



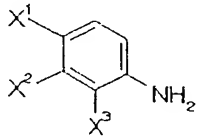
(VII-a)

and then reacting this compound with a compound represented by the following formula;



Process I:

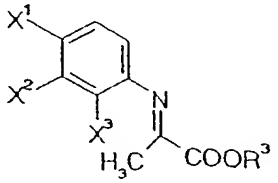
a process which comprises reacting a compound represented by the following formula:



with a compound represented by the following formula:

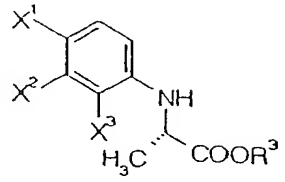
$CH_3COCOOR^3$

to give a compound represented by the following formula:



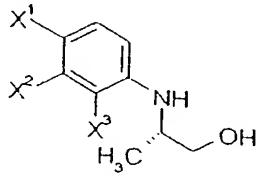
asymmetrically reducing this compound into a compound

represented by formula (III-1-a):



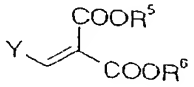
(III-1-a)

reducing this compound into a compound represented by formula (IV-a):

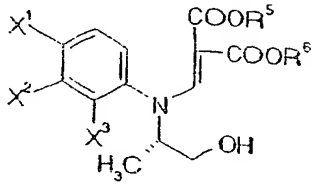


(IV-a)

reacting this compound with a compound represented by the following formula:



to give a compound represented by the formula (V-a):



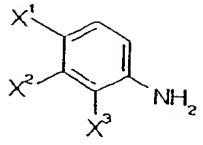
(V-a)

and then treating this compound in the presence of a base; and

Process J:

a process which comprises reacting a compound represented

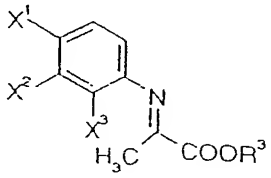
by the following formula:



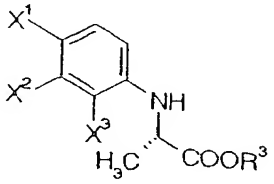
with a compound represented by the following formula:

$CH_3COCOOR^3$

to give a compound represented by the following formula:

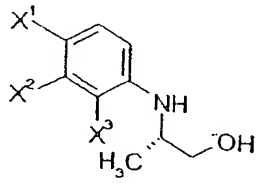


asymmetrically reducing this compound into a compound represented by formula (III-1-a):



(III-1-a)

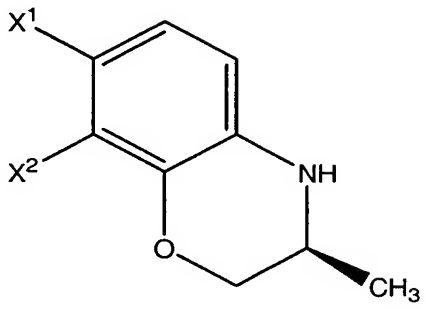
reducing this compound into a compound represented by formula (IV-a):



(IV-a)

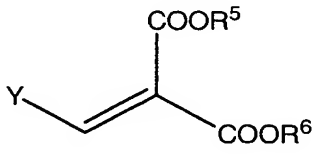
treating this compound in the presence of a base to give a compound

represented by formula (VII-a):



(VII-a)

and then reacting this compound with a compound represented by the following formula:



[[[]] in each of the above formulae, X^1, X^2 and X^3, each independently represents a halogen atom; R^1 represents a leaving group; R^3 represents a hydrogen atom or a carboxyl-protective group; R^4 represents a hydroxyl-protective group; R^5 and R^6, each independently represents an alkyl group having 1 to 6 carbon atoms; R^7 represents a carboxyl-protective group; and Y represents an alkoxy group having 1 to 6 carbon atoms, a halogen atom or a dialkylamino group (wherein the alkyl groups may be the same or different and each represents an alkyl group having 1 to 6 carbon atoms)[[]]].

2. (original): The process as claimed in claim 1 wherein the process for producing the compound represented by the formula (VI-a) is Process A.

3. (original): The process as claimed in claim 1 wherein the process for producing the compound represented by the formula (VI-a)

is Process B.

4. (original): The process as claimed in claim 1 wherein the process for producing the compound represented by the formula (VI-a) is Process C.

5. (original): The process as claimed in claim 1 wherein the process for producing the compound represented by the formula (VI-a) is Process D.

6. (original): The process as claimed in claim 1 wherein the process for producing the compound represented by the formula (VI-a) is Process E.

7. (original): The process as claimed in claim 1 wherein the process for producing the compound represented by the formula (VI-a) is Process F.

8. (original): The process as claimed in claim 1 wherein the process for producing the compound represented by the formula (VI-a) is Process G.

9. (original): The process as claimed in claim 1 wherein the process for producing the compound represented by the formula (VI-a) is Process H.

10. (original): The process as claimed in claim 1 wherein the process for producing the compound represented by the formula (VI-a) is Process I.

11. (original): The process as claimed in claim 1 wherein the process for producing the compound represented by the formula (VI-a) is Process J.

12. (original): A process as claimed in any of claims 1 to 11 wherein X^1 and X^2 are both fluorine atoms.

13. (original): The process as claimed in claim 12 wherein the boron trifluoride compound is a boron trifluoride compound composed of boron trifluoride and an ether compound.

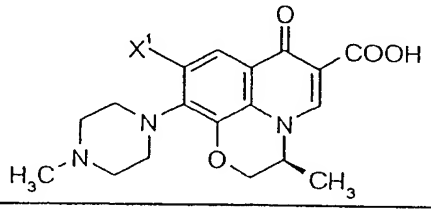
14. (original): The process as claimed in claim 13 wherein the boron trifluoride compound is boron trifluoride diethyl ether complex or boron trifluoride tetrahydrofruan complex.

15. (original): The process as claimed in claim 14 wherein the reaction of 4-methylpiperazine is a reaction in the presence of a trialkylamine.

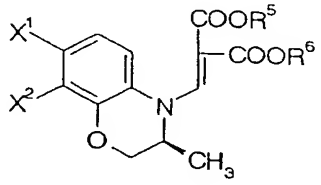
16. (original): The process as claimed in claim 15 wherein the trialkylamine is triethylamine or tributylamine.

17-97. (canceled).

98. (currently amended): ~~The process as claimed in claim 1,~~ A process for producing a compound represented by the following formula:

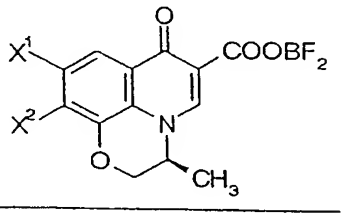


which comprises comprising obtaining a compound represented by formula (VI-a) by any of the following Processes A to J:



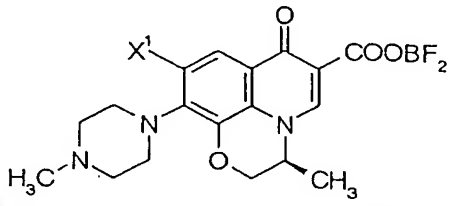
(VI-a)

treating this compound with a boron trifluoride compound to thereby convert it into a boron chelate compound represented by the following formula:



reacting this compound with 4-methylpiperazine to give a

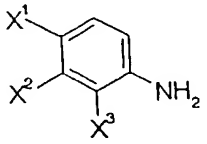
compound represented by the following formula:



and then cleaving and eliminating the boron chelate of this compound:

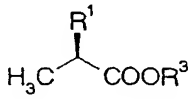
Process A:

a process which comprises reacting a compound represented by formula (I):



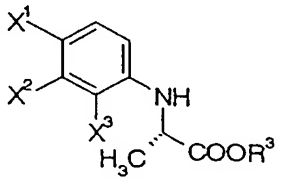
(I)

with a compound represented by formula (II-1-a) in the presence of a base:



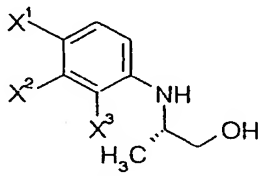
(II-1-a)

to give a compound represented by the formula (III-1-a):



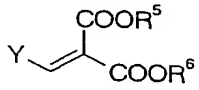
(III-1-a)

reducing this compound into a compound represented by formula (IV-a):

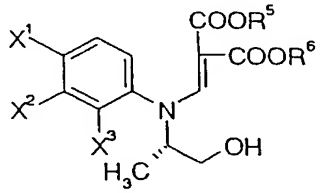


(IV-a)

reacting this compound with a compound represented by the following formula:



to give a compound represented by the formula (V-a):

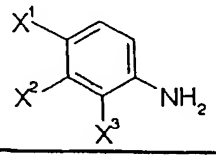


(V-a)

and then treating this compound in the presence of a base;

Process B:

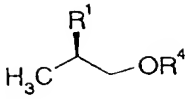
a process which comprises reacting a compound represented by formula (I):



(I)

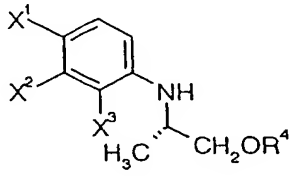
with a compound represented by formula (II-2-a) in the presence

of a base:



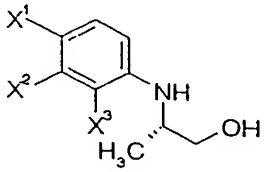
(II-2-a)

to give a compound represented by formula (III-2-a):



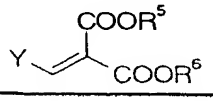
(III-2-a)

eliminating the hydroxyl-protective group of this compound to give a compound represented by formula (IV-a):

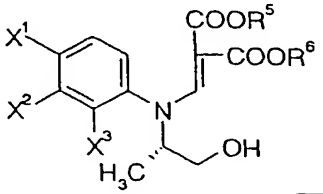


(IV-a)

reacting this compound with a compound represented by the following formula:



to give a compound represented by the formula (V-a):

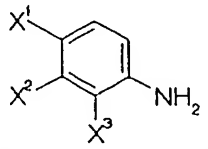


(V-a)

and then treating this compound in the presence of a base;

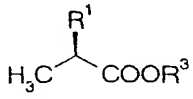
Process C:

a process which comprises reacting a compound represented by formula (I):



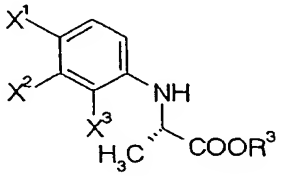
(I)

with a compound represented by formula (II-1-a) in the presence of a base:



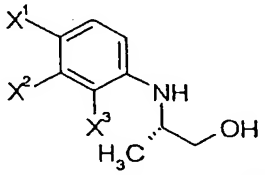
(II-1-a)

to give a compound represented by formula (III-1-a):



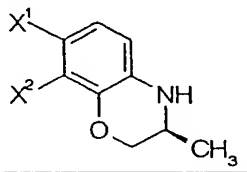
(III-1-a)

reducing this compound into a compound represented by formula (IV-a):



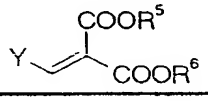
(IV-a)

treating this compound in the presence of a base to give a compound represented by the formula (VII-a):



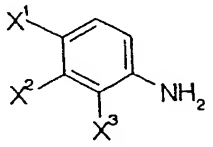
(VII-a)

and reacting this compound with a compound represented by the following formula;



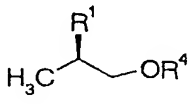
Process D:

a process which comprises reacting a compound represented by formula (I):



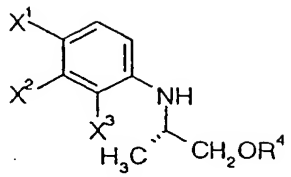
(I)

with a compound represented by formula (II-2-a) in the presence of a base:



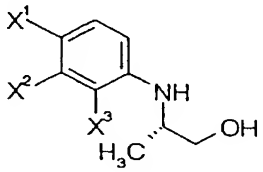
(II-2-a)

to give a compound represented by formula (III-2-a):



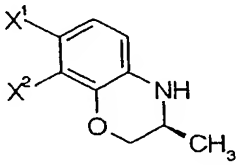
(III-2-a)

eliminating the hydroxyl-protective group of this compound to give a compound represented by formula (IV-a):



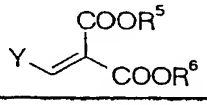
(IV-a)

treating this compound in the presence of a base to give a compound represented by formula (VII-a):



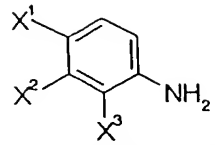
(VII-a)

and then reacting this compound with a compound represented by the following formula:



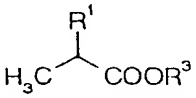
Process E:

a process which comprises reacting a compound represented by formula (I):



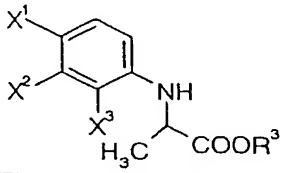
(I)

with a compound represented by formula (II-1) in the presence of a base:



(II-1)

to give a compound represented by formula (III-1):



(III-1)

and then subjecting this compound to the following Method 1 or 2;

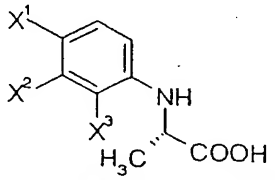
Method 1:

in case of the compound represented by the formula (III-1) where R^3 is not a hydrogen atom, a method which comprises treating this compound with an enzyme capable of asymmetrically hydrolyzing an ester or a liquid culture medium of a microorganism, cells of this microorganism or processed cells of this microorganism and, after the completion of this treatment, isolating the product from the treated liquid mixture;

Method 2:

in case of the compound represented by the formula (III-1) where R^3 is a hydrogen atom, a method which comprises optically resolving this compound by reacting with an optically active organic base;

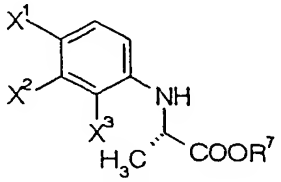
to obtain a carboxylic acid compound represented by the following formula:



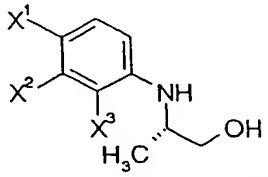
esterifying this compound in the presence of an alcohol represented by the following formula:

R^7-OH

to give an ester compound represented by the following formula:



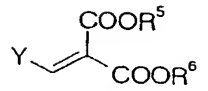
reducing the compound into a compound represented by formula (IV-a):



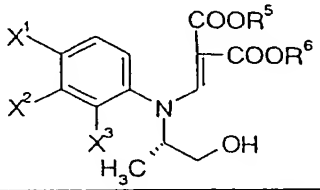
(IV-a)

reacting this compound with a compound represented by the

following formula:



to give a compound represented by formula (V-a):

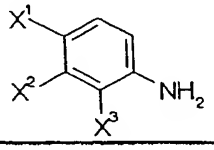


(V-a)

and then treating this compound in the presence of a base;

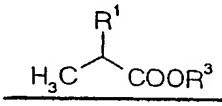
Process F:

a process which comprises reacting a compound represented by formula (I):



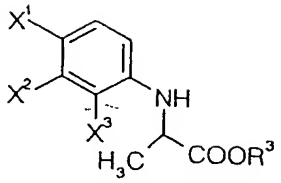
(I)

with a compound represented by formula (II-1) in the presence of a base:



(II-1)

to give a compound represented by formula (III-1):



(III-1)

and then subjecting this compound to the following Method 1 or 2;

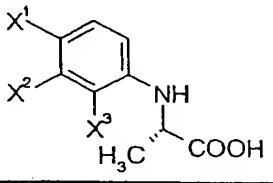
Method 1:

in case of the compound represented by the formula (III-1) where R^3 is not a hydrogen atom, a method which comprises treating this compound with an enzyme capable of asymmetrically hydrolyzing an ester or a liquid culture medium of a microorganism, cells of this microorganism or processed cells of this microorganism and, after the completion of this treatment, isolating the product from the treated liquid mixture;

Method 2:

in case of the compound represented by the formula (III-1) where R^3 is a hydrogen atom, a method which comprises optically resolving this compound by reacting with an optically active organic base;

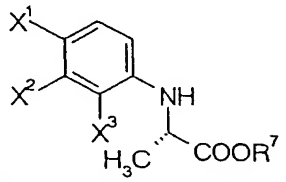
to obtain a carboxylic acid compound represented by the following formula:



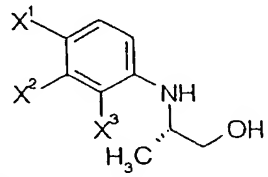
esterifying this compound in the presence of an alcohol represented by the following formula:

R^7-OH

to give an ester compound represented by the following formula:

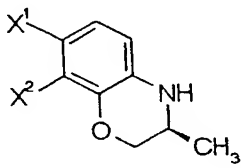


reducing the compound into a compound represented by formula (IV-a):



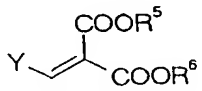
(IV-a)

treating this compound in the presence of a base to give a compound represented by formula (VII-a):



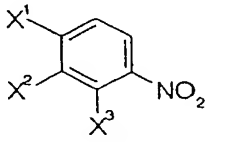
(VII-a)

and then reacting this compound with a compound represented by the following formula;

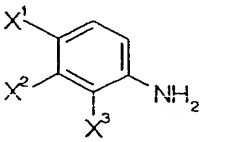


Process G:

a process which comprises reacting a compound represented by the following formula:



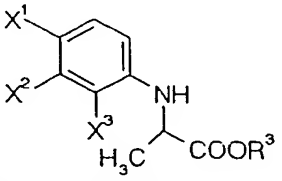
or by the following formula:



with a compound represented by the following formula in the presence of a metal catalyst under a hydrogen gas atmosphere, optionally in the presence of a dehydrating agent or an acid:

$CH_3COCOOR^3$

to give a compound represented by formula (III-1):



(III-1)

and then subjecting this compound to the following Method 1 or 2;

Method 1:

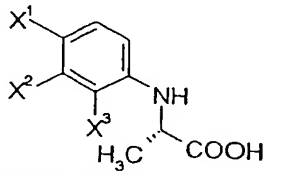
in case of the compound represented by the formula (III-1)

where R^3 is not a hydrogen atom, a method which comprises treating this compound with an enzyme capable of asymmetrically hydrolyzing an ester or a liquid culture medium of a microorganism, cells of this microorganism or processed cells of this microorganism and, after the completion of this treatment, isolating the product from the treated liquid mixture;

Method 2:

in case of the compound represented by the formula (III-1) where R^3 is a hydrogen atom, a method which comprises optically resolving this compound by reacting with an optically active organic base;

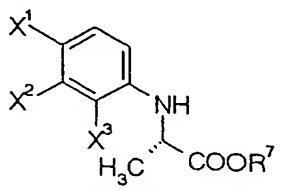
to obtain a carboxylic acid compound represented by the following formula:



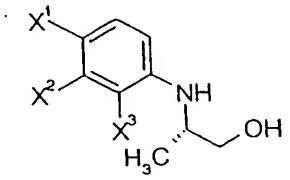
esterifying this compound in the presence of an alcohol represented by the following formula:

R^7-OH

to give an ester compound represented by the following formula:

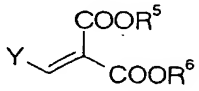


reducing the compound into a compound represented by formula (IV-a):

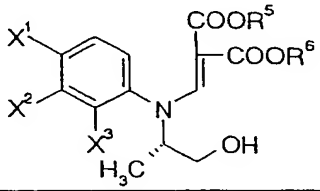


(IV-a)

reacting this compound with a compound represented by the following formula:



to give a compound represented by the formula (V-a):

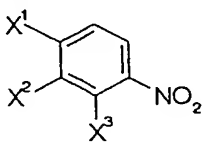


(V-a)

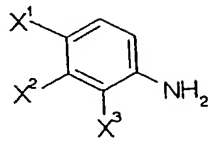
and then treating this compound in the presence of a base;

Process H:

a process which comprises reacting a compound represented by the following formula:



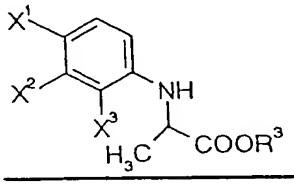
or by the following formula:



with a compound represented by the following formula in the presence of a metal catalyst under a hydrogen gas atmosphere, optionally in the presence of a dehydrating agent or an acid:

$CH_3COCOOR^3$

to give a compound represented by formula (III-1):



(III-1)

and then subjecting this compound to the following Method 1 or 2;

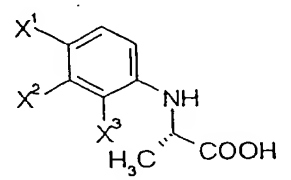
Method 1:

in case of the compound represented by the formula (III-1) where R^3 is not a hydrogen atom, a method which comprises treating this compound with an enzyme capable of asymmetrically hydrolyzing an ester or a liquid culture medium of a microorganism, cells of this microorganism or processed cells of this microorganism and, after the completion of this treatment, isolating the product from the treated liquid mixture;

Method 2:

in case of the compound represented by the formula (III-1) where R^3 is a hydrogen atom, a method which comprises optically resolving this compound by reacting with an optically active organic base;

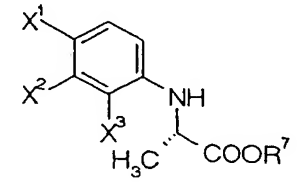
to obtain a carboxylic acid compound represented by the following formula:



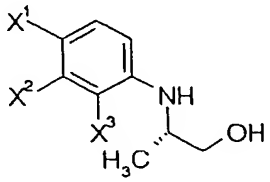
esterifying this compound in the presence of an alcohol represented by the following formula:

R^7-OH

to give an ester compound represented by the following formula:



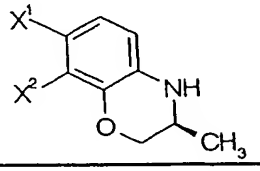
reducing the compound into a compound represented by formula (IV-a):



(IV-a)

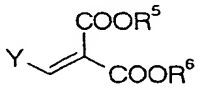
treating this compound in the presence of a base to give a compound

represented by formula (VII-a):



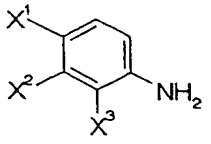
(VII-a)

and then reacting this compound with a compound represented by the following formula;



Process I:

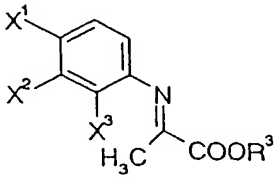
a process which comprises reacting a compound represented by the following formula:



with a compound represented by the following formula:

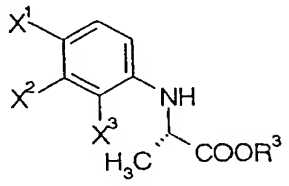
$CH_3COCOOR^3$

to give a compound represented by the following formula:



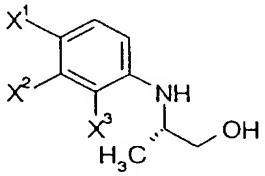
asymmetrically reducing this compound into a compound

represented by formula (III-1-a):



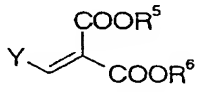
(III-1-a)

reducing this compound into a compound represented by formula (IV-a):

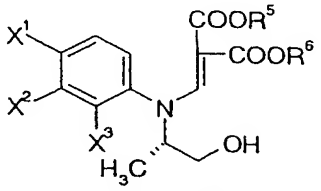


(IV-a)

reacting this compound with a compound represented by the following formula:



to give a compound represented by the formula (V-a):



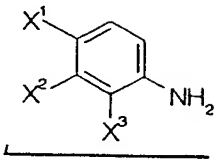
(V-a)

and then treating this compound in the presence of a base; and

Process J:

a process which comprises reacting a compound represented

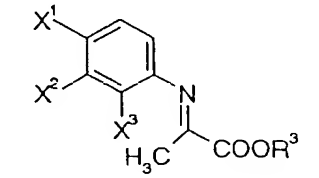
by the following formula:



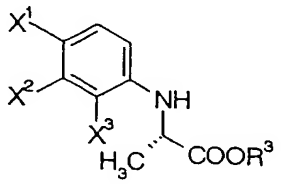
with a compound represented by the following formula:

$CH_3COCOOR^3$

to give a compound represented by the following formula:

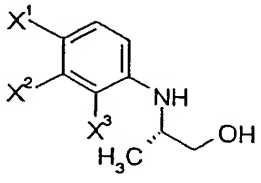


asymmetrically reducing this compound into a compound represented by formula (III-1-a):



(III-1-a)

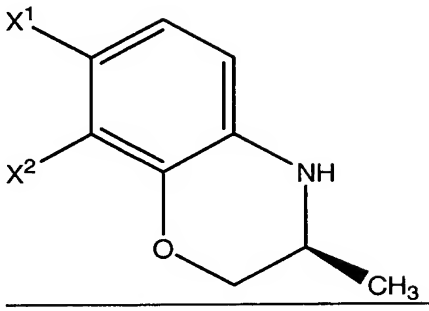
reducing this compound into a compound represented by formula (IV-a):



(IV-a)

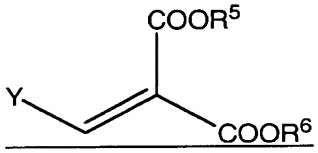
treating this compound in the presence of a base to give a compound

represented by formula (VII-a):



(VII-a)

and then reacting this compound with a compound represented by the following formula:



in each of the above formulae, X^1, X^2 and X^3, each independently represents a halogen atom; R^1 represents a leaving group; R^3 represents a hydrogen atom or a carboxyl-protective group; R^4 represents a hydroxyl-protective group; R^5 and R^6, each independently represents an alkyl group having 1 to 6 carbon atoms; R^7 represents a carboxyl-protective group; and Y represents an alkoxy group having 1 to 6 carbon atoms, a halogen atom or a dialkylamino group (wherein the alkyl groups may be the same or different and each represents an alkyl group having 1 to 6 carbon atoms),

wherein said Method 1 of said Processes E, F, G, and H comprises treating the compound represented by the formula (III-1), where R^3 is not a hydrogen atom, with an enzyme capable of asymmetrically hydrolyzing an ester or a liquid culture medium of a microorganism, cells of this microorganism or processed cells of this microorganism and, after the completion of this treatment, isolating the product from the treated liquid mixture, wherein the enzyme is selected from the group consisting of an esterase, a protease and a chymotrypsin, and the microorganism is selected from the group consisting of bacteria belonging to the genera *Bacillus*, *Micrococcus* and *Actinomyces*, fungi belonging to the genera *Aspergillus*, *Rhizopus, Nannizia* and *Penicillium*, and yeasts belonging to the genera *Candida*, *Saccharomyces* and *Zygoascus*.